REFERENCES

[1] I. Bray and A. T. Stelbovics, (1993) Determination of cross sections and rate coefficients for the electron impact dissociation of NO_2," Phys. Rev. Lett. **70**, 746.

[2] D. Kato and S. Watanabe, (1995) Dissociative ionization of silane by electron impact Phys. Rev. Lett. **74**, 2443.

[3] K. Bartschat and I. Bray, (1996) Ionization and dissociation by electron impact III. CH_4 and SiH_4J. Phys. B **29**, L577.

[4] M. S. Pindzola and F. Robicheaux, (1996) Dissociative ionization of silane by electron impactPhys. Rev. A **54**, 2142.

[5] M. Baertschy, T. N. Rescigno, W. A. Isaacs, X. Li, and C. W. McCurdy, (2001) Ionization cross sections of silane and disilane by electron impact Phys. Rev. A **63**, 022712.

[6] M. B. Shah, D. S. Elliott, and H. B. Gilbody, (1987) Ionization and dissociation by electron impact III. CH_4 and SiH_4 J. Phys. B **20**, 3501.

[7] See *Dynamics of Molecules and Chemical Reactions*, edited by R. E. Wyatt and J. Z. H. Wang (Dekker, New York 1996) Ionization cross sections of silane and disilane by electron impact.

[8] S. C. Althorpe, D. J. Kouri, and D. K Hoffmann, in *The Physics and Chemistry of Wave Packets*, edited by J. A. Yeazell and T. UzerTheoretical determination of absolute electron-impact ionization cross sections of molecules f(Wiley, New York, 2000)

[9] D. Neuhauser and M. Baer, (1989) Dissociative ionization of silane by electron impactJ. Chem. Phys. **91**, 4651

[10] D. Neuhauser, R. S. Judson, D. J. Kouri, D. E. Adelman, N. E. Shafer, D. A. V. Kliner, and R. N. Zare, (1992) Determination of cross sections and rate coefficients for the electron impact dissociation of NO_2,Science **257**, 519

[11] F. Robicheaux, (1997) Ionization cross sections of silane and disilane by electron impact Phys. Rev. A **56**, 4032.

[12] W.M. Huo, (1972) Determination of cross sections and rate coefficients for the electron impact dissociation of NO_2,J. Chem. Phys. **56**, 3468.

[13] W.M. Huo, (1972) Dissociative ionization of silane by electron impactJ. Chem. Phys. **57**, 4800.

[14] M. Inokuti, (1971) Theoretical determination of absolute electron-impact ionization cross sections of moleculesRev. Mod. Phys. **43**, 297.

[15] E.N. Lassettre, A. Skerbele, and M.A. Dillon, (1969) Ionization and dissociation by electron impact III. CH_4 and SiH_4 J. Chem. Phys. **50**, 1829.

[16] H. Bethe, (1930) Theoretical determination of absolute electron-impact ionization cross sections of moleculesPhys. (Paris) **5**, 325.

[17] E.N. Lassettre, (1965) Dissociative ionization of silane by electron impact J. Chem. Phys. **43**, 4479.

[18] W.M. Huo, (1979) Determination of cross sections and rate coefficients for the electron impact dissociation of NO_2,J. Chem. Phys. **71**, 1593.

[19] Z. Felfli, A.Z. Msezane, and D. Bessis, (1998) Theoretical determination of absolute electron-impact ionization cross sections of molecules Phys. Rev. Lett. **81**, 963.

[20] A.R.P. Rau and U. Fano, (1967)Phys. Rev. **162**, 68

[21] Y.-K. Kim and M.E. Rudd, (1994) Theoretical determination of absolute electron-impact ionization cross sections of moleculesPhys. Rev. A **50**, 3954

[22] I. Bray and A. T. Stelbovics, (1993) Determination of cross sections and rate coefficients for the electron impact dissociation of NO_2,Phys. Rev. Lett. **70**, 746.

[23] D. Kato and S. Watanabe, (1995) Theoretical determination of absolute electron-impact ionization cross sections of molecules Phys. Rev. Lett. **74**, 2443.

[24] K. Bartschat and I. Bray, (1996) Dissociative ionization of silane by electron impactJ. Phys. B **29**, L577.

[25] M. S. Pindzola and F. Robicheaux, (1996) Theoretical determination of absolute electron-impact ionization cross sections of moleculesPhys. Rev. A **54**, 2142.

[26] M. Baertschy, T. N. Rescigno, W. A. Isaacs, X. Li, and C. W. McCurdy, (2001) Theoretical determination of absolute electron-impact ionization cross sections of moleculesPhys. Rev. A **63**, 022712.

[27] M. B. Shah, D. S. Elliott, and H. B. Gilbody, (1987) Absolute cross sections for molecular photoabsorption, partial photoionization, and ionic photofragmentation processes J. Phys. B **20**, 3501.

[28] See *Dynamics of Molecules and Chemical Reactions*,(1996) edited by R. E. Wyatt and J. Z. H. Wang (Dekker, New York 1996).

[29] S. C. Althorpe, D. J. Kouri, and D. K Hoffmann,(2000) in *The Physics and Chemistry of Wave Packets*, edited by J. A. Yeazell and T. Uzer Absolute cross sections for molecular photoabsorption, partial photoionization, and ionic photofragmentation processes (Wiley, New York, 2000)

[30] D. Neuhauser and M. Baer, (1989) Determination of cross sections and rate coefficients for the electron impact dissociation of NO_2, J. Chem. Phys. **91**, 4651

[31] D. Neuhauser, R. S. Judson, D. J. Kouri, D. E. Adelman, N. E. Shafer, D. A. V. Kliner, and R. N. Zare, (1992) Absolute cross sections for molecular photoabsorption, partial photoionization, and ionic photofragmentation processes Science **257**, 519

[32] F. Robicheaux, (1997) Determination of cross sections and rate coefficients for the electron impact dissociation of NO_2,Phys. Rev. A **56**, 4032

[33] W. L. Morgan, 1992 "A critical evaluation of low-energy electron impact cross sections for plasma processing modeling. II: Cl_4, SiH_4, and CH_4," *Plasma Chemistry and Plasma Processing*, vol. 12, no. 4, pp. 477–493.

[34] P. Kae-Nune, J. Perrin, J. Guillon, and J. Jolly, 1995 "Mass spectrometry detection of radicals in SiH4-CH4-H2 glow discharge plasmas," *Plasma Sources Science and Technology*, vol. 4, no. 2, pp. 250–259.

[35] J. W. Gallagher, C. E. Brion, J. A. R. Samson, and P. W. Langhoff, 1988 "Absolute cross sections for molecular photoabsorption, partial photoionization, and ionic photofragmentation processes," *Journal of Physical and Chemical Reference Data*, vol. 17, no. 1, pp. 9–153.

[36] R. D. Johnson, III, B. P. Tsai, and J. W. Hudgens, 1989 "Multiphoton ionization of SiH3 and SiD_3 radicals: electronic spectra, vibrational analyses of the ground and Rydberg states, and ionization potentials," *The Journal of Chemical Physics*, vol. 91, no. 6, pp. 3340–3359.

[37] G. Cooper, T. Ibuki, and C. E. Brion, 1990 "Absolute oscillator strengths for photoabsorption, photoionization and ionic photofragmentation of silane. II. The Si 2p and 2s inner shells," *Chemical Physics*, vol. 140, no. 1, pp. 147–155.

[38] G. Cooper, T. Ibuki, and C. E. Brion, 1990 "Absolute oscillator strengths for photoabsorption, photoionization and ionic photofragmentation of silane. I. The valence shell," *Chemical Physics*, vol. 140, no. 1, pp. 133–145.

[39] J. Perrin, J. P. M. Schmitt, G. de Rosny, B. Drevillon, J. Huc, and A. Lloret, 1982 "Dissociation cross sections of silane and disilane by electron impact," *Chemical Physics*, vol. 73, no. 3, pp. 383–394.

[40] H. Chatham, D. Hils, R. Robertson, and A. Gallagher, 1984 "Total and partial electron collisional ionization cross sections for CH_4, C_2H_6, SiH_4, and Si_2H_6," *The Journal of Chemical Physics*, vol. 81, no. 4, pp. 1770–1777.

[41] E. Krishnakumar and S. K. Srivastava, 1995 "Ionization cross sections of silane and disilane by electron impact," *Contributions to Plasma Physics*, vol. 35, no. 4-5, pp. 395–404,.

[42] R. Basner, M. Schmidt, V. Tarnovsky, K. Becker, and H. Deutsch, 1998 "Dissociative ionization of silane by electron impact," *International Journal of Mass Spectrometry and Ion Processes*, vol. 171, no. 1–3, pp. 83–93.

[43] P. Haaland, 1990 "Dissociative ionization of silane," *Chemical Physics Letters*, vol. 170, no. 2-3, pp. 146–152.

[44] J. D. Morrison and J. C. Traeger, 1973 "Ionization and dissociation by electron impact III. CH_4 and SiH_4," *International Journal of Mass Spectrometry and Ion Physics*, vol. 11, no. 3, pp. 289–300.

[45] M. A. Ali, Y.-K. Kim, W. Hwang, N. M. Weinberger, and M. E. Rudd, 1997 "Electron-impact total ionization cross sections of silicon and germanium hydrides," *The Journal of Chemical Physics*, vol. 106, no. 23, pp. 9602–9608.

[46] S. P. Khare, S. Prakash, and W. J. Meath, 1989 "Dissociative ionization of NH_3 and H_2O molecules by electron impact," *International Journal of Mass Spectrometry and Ion Processes*, vol. 88, no. 2-3, pp. 299–308.

[47] H. Deutsch, K. Becker, S. Matt, and T. D. Märk, 2000 "Theoretical determination of absolute electron-impact ionization cross sections of molecules," *International Journal of Mass Spectrometry*, vol. 197, no. 1–3, pp. 37–69,.

[48] K. N. Joshipura, B. G. Vaishnav, and S. Gangopadhyay, 2007 "Electron impact ionization cross-sections of plasma relevant and astrophysical silicon compounds: SiH_4, Si_2H_6, $Si(CH_3)_4$, SiO, SiO_2, SiN and SiS," *International Journal of Mass Spectrometry*, vol. 261, no. 2-3, pp. 146–151,.

[49] M. Vinodkumar, C. Limbachiya, K. Korot, and K. N. Joshipura, 2008 "Theoretical electron impact elastic, ionization and total cross sections for silicon hydrides, SiH_x (x=1,2,3,4) and disilane, Si_2H_6 from threshold to 5 keV," *The European Physical Journal D*, vol. 48, no. 3, pp. 333–342.

[50] S. Pal, 2004 "Determination of single differential and partial cross-sections for the production of cations in electron-methanol collision," *Chemical Physics*, vol. 302, no. 1–3, pp. 119–124,.

[51] S. Pal, J. Kumar, and T. D. Märk, 2004 "Differential, partial and total electron impact ionization cross sections for SF_6," *The Journal of Chemical Physics*, vol. 120, no. 10, pp. 4658–4663,.

[52] P. Bhatt and S. Pal, 2006 "Determination of cross sections and rate coefficients for the electron impact dissociation of NO_2," *Chemical Physics*, vol. 327, no. 2-3, pp. 452–456,.